of illustration only and not by way of limitation. Various substitutions, modifications, additions and/or rearrangements within the spirit and/or scope of the underlying inventive concept will become apparent to those skilled in the art from this detailed description.

The below-referenced U.S. Patent Applications disclose embodiments that were satisfactory for the purposes for which they are intended. The entire contents of U.S. Serial Numbers 09/273,430, filed March 19, 1999; 09/859,193, filed May 15, 2001; 09/854,351, filed May 10, 2001; 09/672,909, filed September 28, 2000; 09/653,189, filed August 31, 2000; 09/652,815, filed August 31, 2000; 09/653,183, filed August 31, 2000; 09/653,425, filed August 31, 2000; 09/653,421, filed August 31, 2000; 09/653,557, filed August 31, 2000; 09/653,475, filed August 31, 2000; 09/653,429, filed August 31, 2000; 09/653,502, filed August 31, 2000; 09/912,454 ~~(Attorney Docket No. TNSY:017US)~~, filed July 25, 2001; 09/912,834 ~~(Attorney Docket No. TNSY:018US)~~, filed July 25, 2001; 09/912,872 ~~(Attorney Docket No. TNSY:019US)~~, filed July 25, 2001; 09/912,854 ~~(Attorney Docket No. TNSY:021US)~~, filed July 25, 2001; 09/915,002 ~~(Attorney Docket No. TNSY:022US)~~, filed July 25, 2001 09/912,870 ~~; (Attorney Docket No. TNSY:023US)~~, filed July 25, 2001; 09/912,898 ~~(Attorney Docket No. TNSY:024US)~~, filed July 25, 2001; and 09/912,833 ~~(Attorney Docket No. TNSY:026US)~~, filed July 25, 2001 are hereby expressly incorporated by reference herein for all purposes.

In a system with multiple compute nodes, if the nodes are to be applied to a single parallel application, some means of communication between the nodes must be provided. In a traditional symmetric multiprocessor (SMP), all of the memory is shared and communication between the computer nodes is via primitive Load and Store operations to memory. All Loads and Stores (and all instructions Fetches) at any CPU go to memory, therefore the memory is a significant source of contention and loss of performance.

In a cluster or MMP, the nodes do not share any memory and communications is via "message-passing". Clusters therefore eliminate the memory contention of SMPs, but they trade this advantage for the disadvantage of requiring significant software overhead to formulate and respond to messages. In fact, this disadvantage has, for most parallel applications, been greater than the disadvantage of the SMPs' memory contention, to the point that SMPs have been much more successful commercially that have clusters of MMPs

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